Amendments to the Specification:

At page 1, line 1, please delete the word:

~~DESCRIPTION~~

Please amend the title to read as:

METHODS FOR PRODUCING ANTIBODIES

Please insert the following paragraph after the title:

CROSS-REFERENCE TO RELATED APPLICATIONS

This application is the National Stage of International Application No. PCT/JP2004/008585, filed June 11, 2004, which claims the benefit of Japanese Patent Applications Serial No. 2003-167087, filed on June 11, 2003, and International Application No. PCT/JP2003/14059, filed on November 4, 2003. The contents of all of the foregoing applications are hereby incorporated by reference in their entireties.

Please amend the paragraph beginning at page 7, line 17, as follows:

Those skilled in the art can appropriately obtain antibody libraries since many antibody libraries are already known and methods for producing antibody libraries are commonly known. For example, antibody phage libraries may be obtained according to the methods described in the following literature: Clackson *et al.* Nature 352: 624-628 (1991); Marks *et al.* J. Mol. Biol. 222: 581-597 (1991); Waterhouses *et al.* Nucleic Acid Res. 21: 2265-2266 (1993); Griffiths *et al.* EMBO J. 13: 3245-3260 (1994); Vaughan *et al.* Nature Biotechnology 14: 309-314 (1996); JP-A (Kohyo) ~~H20-504970~~ H10-504970. Alternative known methods can also be used, such as methods using eukaryotic cells as a library (WO95/15393 pamphlet), or ribosome display methods. Further, techniques for obtaining human antibodies by panning using a human antibody library are also known. For example, variable regions of human antibodies can be expressed as single chain antibodies (scFvs) on the surface of phages using phage display

methods, and those phages which bind antigens can be selected. The genes of selected phages can be analyzed to determine the nucleotide sequence encoding the variable regions of the human antibody that bind an antigen. Once the nucleotide sequence of the scFv that binds to the antigen has been determined, a human antibody can be obtained by preparing a suitable expression vector based on that sequence. Such methods are already well known (see WO92/01047, WO92/20791, WO93/06213, WO93/11236, WO93/19172, WO95/01438, and WO95/15388).

Please amend the paragraph beginning at page 13, line 22, as follows:

The vectors used to construct vectors that can express the first and second pairs of an antibody of the present invention at different times are not particularly limited, and any vector may be used. Specific examples of the vectors include expression vectors derived from mammals (for example, pcDNA3 (Invitrogen), [[pEGF]]pEF-BOS (Nucleic Acid Res. 18(17): 5322 (1990)), pEF, and pCDM8), expression vectors derived from insect cells (for example, the "Bac-to-Bac Baculovirus expression system" (Gibco BRL), pBacPAK8), expression vectors derived from plants (for example, pMH1 and pMH2), expression vectors derived from animal viruses (for example, pHSV, pMV, and pAdexLcw), expression vectors derived from retroviruses (for example, pZIPneo), yeast-derived expression vectors (for example, the "Pichia Expression Kit" (Invitrogen), pNV11, SP-QO1), expression vectors derived from *Bacillus subtilis* (for example, pPL608 and pKTH50), and expression vectors derived from *E. coli* (M13 series vectors, pUC series vectors, pBR322, pBluescript, and pCR-Script). Commercially available vectors in which expression can be induced by an expression inducing agent may also be used.

Please amend the paragraph beginning at page 17, line 22, as follows:

If an antibody of the present invention is produced for use in cancer therapy, for example, one arm of the antibody may be prepared so as to recognize a tumor cell antigen, and the other arm may be designed to recognize a molecule that triggers cytotoxicity. Examples of tumor cell

antigens include 1D10 (malignant B cell), AMOC-1 (pan carcinoma associated antigen), CAMA1, CD7, CD15, CD19, CD22, CD38, CEA, EGF receptor, Id-1, L-D1 (colon cancer), MoV18, p97, $p185^{HER2}$, OVCAR-3, neural cell adhesion molecule (NCAM), ~~kidney cell carcinoma,~~ melanocyte-stimulating hormone analogue, and folate binding protein (FBP). Examples of cytotoxicity-triggering molecules are CD3, CD16, and FcγRI. In addition, a BsAb may be designed so that it can bind to a toxin such as IFN-α, saponin, vinca alkaloid, and ricin A chain.

Please amend the paragraph beginning at page 24, line 26, as follows:

When COS-7 cells (Invitrogene) which are derived from the cultured cell line of African green monkey kidney were used, the cells were suspended in DMEM medium supplemented with 10% FCS, plated into each well of 6-well plates for adherent cells (CORNING) at a cell density of 1x 10^5 cells/ml, 1 ml per well, and then cultured overnight at 37°C, 5% CO_2 in an incubator. The plasmid solution prepared in Section 2-1 was added to a mixture of 1.5 μl of FuGENE6 transfection reagent (Roche)~~(Invitrogen)~~ and 250 μl of Opti-MEM I medium (Invitrogen), left for 20 minutes at room temperature, and added to the cells in each well. The culture was incubated for four to five hours at 37°C, 5% CO_2 in an incubator.

Please amend the paragraph beginning at page 27, line 7, as follows:

In both kinds of ELISA strategies (AR1-His + Antibody + AR2-biotin, and AR2-His + Antibody + AR1-biotin), the samples in which expression of each HL molecule was induced at different times showed about a twofold higher binding ability per unit antibody level than samples in which both HL molecules were expressed simultaneously. This result indicates the preferential proportion of the desired ~~antibody~~ type among the expressed IgGs.